In the Claims

1.-64. (Cancelled)

65. (Currently Amended) A process for treating fibroses comprising administering a therapeutically effective amount of the pharmaceutical composition which comprises at least one biocompatible polymer of the following general formula (I):

$$A_aX_XY_yZ_z,$$

wherein:

- A is $-(O\text{-}CH_2\text{-}CH_2\text{-}CO)-$,

- X is $-COOH$ or ~~$-COO^-Na^+$~~ $-COO^-Na^+$,

- Y is $-CO\text{-}CH_2\text{-}CHOH\text{-}CH_2\text{-}SO_3H$ or ~~$-CO\text{-}CH_2\text{-}CHOH\text{-}CH_2\text{-}SO_3^-Na^+$~~ $-CO\text{-}CH_2\text{-}CHOH\text{-}CH_2\text{-}SO_3^-Na^+$, and

- Z represents at least one functional chemical group, which is different from X and Y, selected from the group consisting of a fatty acid, amino acid, fatty alcohol, ceramide or derivative thereof and nucleotide addressing sequences and which confers supplementary biological or physiochemical properties, or wherein

- A is a glucose monomer,

- X is $-CH_2\text{-}COOH$ or ~~$-CH_2\text{-}COO^-Na^+$~~ $-CH_2\text{-}COO^-Na^+$,

- Y is [[$=SO_3H$]] $-SO_3H$ or $-SO_3\text{-}Na^+$, and

- a represents the number of monomers A such that the mass of said polymers of formula (I) is greater than approximately 5,000 da,

- x represents a substitution rate of the monomers A by the groups X, which is between approximately 20 and 150%,

- y represents a substitution rate of the monomers A by the groups Y, which is between approximately 30 and 150%, and

- z represents a substitution rate of the monomers A by the groups Z, which is between approximately 0 and 50%.

66. (Previously Presented) A process for treating fibroses comprising administering a therapeutically effective amount of the pharmaceutical composition which comprises at least one biocompatible polymer of the following general formula (I):

$A_aX_XY_yZ_z$

wherein:

- A represents a monomer selected from the group consisting of a sugar or -(O-CH_2-CH_2-CO)-,

- X represents a carboxyl group bonded to monomer A and is contained within a group according to the following formula: -R-COO-R', in which R is a bond or an aliphatic hydrocarbon chain, optionally branched and/or unsaturated, and which can contain one or more aromatic rings except for benzylamine and benzylamine sulfonate, and R' represents a hydrogen atom or a cation,

- Y represents a sulfate or sulfonate group bonded to monomer A and is contained within a group according to one of the following formulas: -R-O-SO_3-R', -R-N-SO_3-R', -R-SO_3-R', in which R is a bond or an aliphatic hydrocarbon chain, optionally branched and/or unsaturated, and which can contain one or more aromatic rings except for benzylamine and benzylamine sulfonate, and R' represents a hydrogen atom or a cation,

- Z represents at least one functional chemical group, which is different from X and Y, selected from the group consisting of a fatty acid, amino acid, fatty alcohol, ceramide or derivative thereof and nucleotide addressing sequences and which confers supplementary biological or physiochemical properties,

- a represents the number of monomers A such that the mass of said polymers of formula (I) is greater than approximately 5,000 da,

- x represents a substitution rate of the monomers A by the groups X, which is between approximately 20 and 150%,

- y represents a substitution rate of the monomers A by the groups Y, which is between approximately 30 and 150%, and

- z represents a substitution rate of the monomers A by the groups Z, which is between approximately 0 and 50%.

67. (New) A process for treating fibroses comprising administering a therapeutically effective amount of the pharmaceutical composition which comprises at least one biocompatible polymer of the following general formula (I):

AaXxYyZz

wherein:

- A is glucose,
- X is $-CH_2$-COOH or $-CH_2$ -COO^-Na^+,
- Y is $-SO_3^-$ or $-SO_3H$, and
- Z is phenylalanine or tyrosine,
- a represents the number of monomers A such that the mass of said polymers of formula (I) is greater than approximately 5,000 da,
- x represents a substitution rate of the monomers A by the groups X, which is between approximately 19.8 and 50%,
- y represents a substitution rate of the monomers A by the groups Y, which is between approximately 50 and 110%, and
- z represents a substitution rate of the monomers A by the groups Z, which is between approximately 17.9 and 30%.

68. (New) A process for treating fibroses comprising administering a therapeutically effective amount of the pharmaceutical composition which comprises at least one biocompatible polymer of the following general formula (I):

AaXxYyZz

wherein:

- A is glucose,
- X is $-CH_2$-COOH or $-CH_2$ -COO^-Na^+,
- Y is $-SO_3^-$ or $-SO_3H$, and
- Z is acetate,
- a represents the number of monomers A such that the mass of said polymers of formula (I) is greater than approximately 5,000 da,
- x represents a substitution rate of the monomers A by the groups X, which is between approximately 19.8 and 50%,
- y represents a substitution rate of the monomers A by the groups Y, which is between approximately 50 and 110%, and
- z represents a substitution rate of the monomers A by the groups Z, which is between approximately 10 and 30%.